

September 24, 1956

Dear Norton:

How go the protoplasts?

Since coming back to the lab after a summer trip, and breaking in a couple of student-assistants, I have mainly been busy with two things: learning how to grow L forms of E. coli, and counting how many papers have already been published on the formation of protoplasts with penicillin. Both tasks have been messy: the lot of agar seems to be critical for the first question; as of today~~s~~ we've settled on a batch of New Zealand agar which seems far and away the best substrate for L colonies of K-12. Yes, though the p. only enlarge and do not proliferate in broth, they give rise to L colonies in ~~the~~ (not on) the right agar. I don't yet have passage strains of the K-12 L, much less any experiments on their genetic properties, which is the point of the whole business. No more luck than that yet either on DNA effects, but I've been hopeful that the L (i.e., protoplasmic) colony will be more susceptible.

The part of this story that has provoked the most discussion has been the mechanism of penicillin action. I thought it was adequately covered in one sentence in the PHAS note, but evidently not, judging from the explanations that have been called for. I'm not sure I'd bother with this at that, except possibly for the nonsense that Gale has promulgated. Anyhow, I thought you'd be curious to see this. If you've seen a comparable formulation anywhere else, at least ~~much~~ closer than Cooper's, I hope you'll let me know.

Have you talked to Dean Fraser within the last couple of months? What is ~~versus~~ doing in this story?

Yrs. sincerely,

Joshua Lederberg

P.S. I hear Tatum's coming to Rockefeller! Wow.